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JC645 U.S. PTO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application of: Glen J. Anderson
Title: AUDIO ASSISTED SETUP APPARATUS AND METHOD
Attorney Docket No.: 450.282US1

PATENT APPLICATION TRANSMITTAL

BOX PATENT APPLICATION
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We are transmitting herewith the following attached items and information (as indicated with an "X"):

- X Utility Patent Application under 37 CFR § 1.53(b) comprising:
 - X Specification (14 pgs, including claims numbered 1 through 28 and a 1 page Abstract).
 - X Formal Drawing(s) (4 sheets).
 - X Signed Declaration (3 pgs).
 - X Signed Power of Attorney (1 pg.)
- X Assignment of the invention to Gateway, Inc. (2 pgs) and Recordation Form Cover Sheet.
- X Information Disclosure Statement (1 pgs), Form 1449 (1 pgs), and copies of cited references (5).
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AUDIO ASSISTED SETUP APPARATUS AND METHOD

Field

5 The present invention relates generally to computer system assembly and setup, and more specifically to assembly and set assistance.

Background

10 Many modern consumers purchase personal computer systems through manufacturers that sell computers over the Internet or World Wide Web. Users buying computers in this manner have the opportunity to select the options they wish to have on their computer, including the type and size of monitors, processor speed, memory, storage, audio and video cards, speakers, printers, CD-ROM and DVD
15 drives, and the like.

Manufacturers typically assemble the computer system internal components such as memory, storage, audio and video cards, processor, and the like into the main central processing unit (CPU) of the computer. However, monitors, speakers, keyboards, pointing devices such as a mouse, external storage and drives, printers,
20 and the like are typically shipped with the computer system, but unassembled. A set of written instructions is often included with the computer system. The instructions provide the user with assembly information for the peripheral components of the system.

Some computer manufacturers color code cords and cables with matching
25 color ports on the CPU to assist the user in connection of the proper cables to the proper ports. However, not all manufacturers do this, and not all ports and cables can be color coded for ease of assembly. Further, while color coded cables and assembly instructions may assist in setup, computer manufacturers get many telephone calls to customer support for users attempting to assemble a computer
30 system. Often, consumers who call customer service lines are required to provide a

quantity of information about the computer system, requiring extra time and effort to locate serial numbers and the like, or are placed on hold waiting for a customer service representative. Hold times vary by day and hour, so a customer calling during a busy time may be placed on hold for a period of fifteen minutes or more.

- 5 Being placed on hold is irritating to consumers, and a requirement to determine information often thought by users to be unnecessary is also irritating to consumers.

It would be desirable, therefore, to provide a user further instructions for assembling a computer.

10

Summary

The present invention overcomes the problems of known systems by providing an audio setup assistant which activates automatically to assist setup.

- 15 In one embodiment, an audio assisted setup apparatus includes a processor, a memory operatively connected to the processor, the memory containing audio file instructions for setting up a computer system, a speaker connected to the processor, and a set of controls for controlling the operation of the audio file instructions. The setup apparatus is automatically activated upon a triggering event such as the opening of a box or impingement of light on a triggering photo diode or the like.

- 20 In another embodiment, a method of assisting a user in set up of a computer system includes providing a self-contained apparatus containing a set of audio instructions presentable to the user upon actuation of the apparatus, activating the apparatus upon the occurrence of a triggering event, and allowing the user to control the presentation of audio instructions.

- 25 In yet another embodiment, a packing container for a computer system includes a container capable of holding computer system components, and an audio assisted setup apparatus affixed to the container, the apparatus activated to provide audio startup instructions to assist a user in setting up a computer system.

Other embodiments are described and claimed.

30

Brief Description of the Drawings

Figure 1 is a schematic block diagram of an apparatus embodiment of the present invention;

5 Figure 2 is a representative view of one embodiment of a set of controls for the present invention;

Figure 3A is a flow chart diagram of a method embodiment of the present invention;

10 Figure 3B is a flow chart diagram of representative audio instructions of an embodiment of the present invention;

Figure 4 is a perspective view of a computer system embodiment of the present invention;

Figure 5 is a perspective view of a container embodiment of the present invention; and

15 Figure 6 is a perspective view of another embodiment of the present invention.

Description of Embodiments

20 In the following detailed description of embodiments, reference is made to the accompanying drawings which form a part hereof, and in which are shown by way of illustration specific embodiments in which the invention may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be
25 utilized and logical, structural, electrical, and other changes may be made without departing from the scope of the present invention.

Some portions of the detailed descriptions which follow are presented in terms of algorithms and symbolic representations of operations on data bits within a computer memory. These algorithmic descriptions and representations are the means
30 used by those skilled in the data processing arts to most effectively convey the

substance of their work to others skilled in the art. An algorithm is here, and generally, conceived to be a self-consistent sequence of steps leading to a desired result. The steps are those requiring physical manipulations of physical quantities. Usually, though not necessarily, these quantities take the form of electrical or
5 magnetic signals capable of being stored, transferred, combined, compared, and otherwise manipulated. It has proven convenient at times, principally for reasons of common usage, to refer to these signals as bits, values, elements, symbols, characters, terms, numbers, or the like. It should be borne in mind, however, that all of these and similar terms are to be associated with the appropriate physical
10 quantities and are merely convenient labels applied to these quantities.

Unless specifically stated otherwise as apparent from the following discussions, it is appreciated that throughout the present invention, discussions utilizing terms such as “processing” or “computing” or “calculating” or “determining” or “displaying” or the like, refer to the action and processes of a
15 computer system, or similar electronic computing device, that manipulates and transforms data represented as physical (electronic) quantities within the computer system’s registers and memories into other data similarly represented as physical quantities within the computer system memories or registers or other such information storage, transmission or display devices.

Figure 1 is a schematic block diagram view of one embodiment 100 of an audio assisted setup device according to the present invention. Apparatus 100 comprises a processor 102 operatively connected to a memory 104, a set of controls 106, a speaker 108, and a power supply 110. The memory 104 contains instructions for executing a program to provide audio instructions for setting up a computer. The
25 instructions are presented to a user through the speaker 108, which in one embodiment is a piezoelectric speaker.

When the apparatus is activated, before the computer system is set up, the apparatus in one embodiment issues a first comment or instruction automatically. Automatic activation of the apparatus may be by one of many methods. In one
30 embodiment, an actuator 112 connects the power supply 110 to the microprocessor

102 upon the occurrence of an activating event. For example, the activating event could be opening a box in which the apparatus 100 is placed. In another embodiment, the apparatus could be activated by exposing the apparatus to light. In other embodiments, the actuator 112 is connected to provide an actuation signal to
5 the processor 102 to trigger the operation of the apparatus 100.

In one embodiment, the actuator 112 is a switch which is closed upon the activating event. In another embodiment, the actuator 112 is a photo diode which completes a circuit between the power supply 110 and the processor 102 when a predetermined level of light is incident upon the photo diode. In other embodiments,
10 the actuation of the apparatus is triggered by an activating event

The apparatus does not consume much power. Power supply 110 therefore does not need to be excessive. In various embodiments, the power supply 110 is a button cell battery, a solar strip, or the like.

In one embodiment, the components of apparatus 100 are mounted on
15 mounting structure 116. Mounting structure 116 may be attached or mounted to any number of physical locations including but not limited to a box flap for a box containing computer system components, an actual component, or the like. In another embodiment, the mounting structure 116 is a printed circuit board

A series of audio instructions playable by the speaker 108 are stored in the
20 memory 104. The instructions stored in the memory 104 are accessed by the processor 102 in response to commands issued by the user via the controls 106. The instructions stored in memory 104 are in one embodiment programmed into memory 104 through a signal input connection 114. Signal input connection 114 is in one embodiment a proprietary communications protocol connector so as to prevent
25 corruption of the audio instructions inadvertently by a user. In another embodiment, a standard data connection is utilized for signal input connection 114.

Controls 106 serve to allow a user to control the presentation of information presented by apparatus 100. A representative set of control 106 is shown in greater detail in Figure 2. Controls 106 comprise buttons or other actuating configurations
30 including by way of example only and not by way of limitation back button 120, next

button 122, repeat button 124, restart button 126, more button 128, voice speed buttons 132, and language button 134. Additionally, controls 106 in one embodiment further include a display screen 130. Display may be a small liquid crystal display (LCD), or a series of light emitting diodes (LEDs) or the like
5 sufficient to display basic information such as the number of the audio instruction being played.

In one embodiment, instructions for operating the apparatus 100 are printed directly on the apparatus 100. If the user wishes at a later time to review certain instructions, or wishes to utilize the instructions to set up the computer once again
10 after it has been moved, the user can reinitiate the operation of apparatus 100 to provide setup instructions once again.

The set of audio instructions stored in memory are presented in sequential fashion, presenting a complete set of instructions to the user for setting up the computer system. The user may repeat instructions, replay certain instructions,
15 restart the instruction set, increase or decrease the speed of playback, all by pressing the appropriate buttons on the controls 106. Back button 120 moves back one instruction in the instruction set. Forward button 122 moves forward one instruction in the instruction set. Repeat button 124 repeats the last instruction. Restart button 126 restarts the instruction set from the beginning. More button 128 gives the user
20 further detail on the current instruction in the instruction set. Speed buttons 132 increase or decrease the speed of the playback of the audio instructions. Language button 134 changes the language of the instructions of the instruction set.

Display 130 in one embodiment displays a number of the instruction set corresponding to a numbered set of written instructions also provided with the
25 computer system. In another embodiment, the display also includes a label for the instruction to assist the user in determining which instruction is being presented. The user can use the display to move forward or backward in the instruction set to a specific numbered step by using the display to rapidly navigate the instruction set. In this embodiment, the audio setup instructions need not be presented in sequential
30 order. The user can skip to a specific instruction. In another embodiment, controls

106 include a numeric keypad so the user can enter the number of a specific instruction to hear.

Figures 3A and 3B are flow chart diagrams of process flow 300A and corresponding audio instructions 300B. Identical numbers with A and B suffixes correspond to matching process flow and audio instructions in Figures 3A and 3B. A method embodiment 300A for a process of a user utilizing the audio instructions comprises providing instructions either on the box or actually on the apparatus such as apparatus 100 in block 302A, activating an audio instruction module in block 304A, and presenting either the next instruction or more instructions in blocks 306A, 307A, 308A, and 310A.

Corresponding instructions are shown in Figure 3B. In response to the user opening the computer box or otherwise initiating the audio assisted setup apparatus such as apparatus 100 in block 302A and the audio assisted setup module being activated in block 304A, a representative example of the first voice instruction presented to the user is shown in block 304B. In response to the user pressing the "next" button in block 306A, the instructions shown in block 306B are presented to the user. If the user desires more information, the user can press the more button 128 on controls 106 as shown in block 307A to be presented with the further instructions in block 307B. Further instructions presented in response to user commands to controls 106 are shown in blocks 308B and 310B. It should be understood that further instructions may be part of the setup process, and that only a representative sample of instructions are shown in Figures 3A and 3B.

Desktop computers, as shown in Figure 4, typically include a monitor 400, keyboard input 402, central processing unit 404, and a pointing or selection device such as mouse 405. Further components of a typical computer system may include a machine readable storage media such as disk drive 406, hard disk, CD-ROM 408, DVD, modem, and the like. The processor unit of such a computer typically includes a microprocessor, memory (RAM and ROM), and other peripheral circuitry, not shown. An audio setup apparatus such as apparatus 100 in various embodiments as has been described above is attached to or affixed to monitor 400, CPU 404, or other

peripherals. Such computers are some of the types of host devices on which embodiments of the present invention may be employed.

In another embodiment shown in Figure 5, an apparatus such as apparatus 100 is affixed to or attached to a box in which a computer system or parts thereof are shipped to a user. When the user opens the box, the apparatus is activated. In the embodiment 500 shown, box 502 has an audio assisted setup apparatus such as apparatus 100 attached to flap 504. When flap 504 is opened, apparatus 100 is activated to guide the user through the setup procedure as described above.

In another embodiment 600 shown in Figure 6, an audio assisted setup apparatus 602 is configured to have a fold over flap 604 with address information printed thereon. Once the user is finished with the apparatus 602, the user folds the flap 604 over, seals the embodiment 600, and mails the apparatus back to the manufacturer. The manufacturer can then re-use or re-program and re-use the apparatus for another computer system. Also, if a computer user desires to have audio instructions sent to the user, the embodiment 600 can be mailed from the manufacturer to the user, and be set to activate upon opening of the flap 604.

Methods 300A and 300B and apparatuses 100 and 106 in one embodiment comprise computer programs written to provide audio instructions to assist a user in setup of a computer system as shown in Figure 4. The computer programs run on the dedicated processor of the apparatus out of memory 104, and may be transferred to main memory from some form of permanent storage via signal input 114 when stored on removable media or via a network connection or modem connection, or via other types of computer or machine readable medium from which it can be read and utilized. The computer programs comprise multiple modules or objects to perform the methods 300A and 300B, or the functions of the modules in apparatus 100. The type of computer programming languages used to write the code may vary between procedural code type languages to object oriented languages. The files or objects need not have a one to one correspondence to the modules or method steps described depending on the desires of the programmer. Further, the method and apparatus may

comprise combinations of software, hardware and firmware as is well known to those skilled in the art.

Although specific embodiments have been illustrated and described herein, it will be appreciated by those of ordinary skill in the art that any arrangement which is
5 calculated to achieve the same purpose may be substituted for the specific
embodiments shown. This application is intended to cover any adaptations or
variations of the invention. It is intended that this invention be limited only by the
following claims, and the full scope of equivalents thereof.

660650-00560460

What is claimed is:

1. An audio assisted computer setup apparatus, comprising:
a processor;
a memory operatively connected to the processor, the memory containing
5 audio file instructions for setting up a computer system;
a speaker connected to the processor; and
a set of controls for controlling the operation of the audio file instructions;
wherein the setup apparatus is activated upon a triggering event before the
computer system is set up.
- 10 2. The apparatus of claim 1, wherein the speaker is a piezoelectric speaker.
3. The apparatus of claim 1, wherein the controls comprise a selection
consisting essentially of back, next, repeat, restart, more, language select and speed
15 select options.
4. The apparatus of claim 1, wherein the set of controls further comprises a
display which displays an instruction number and instruction label for the audio
instruction being presented by the audio assisted setup apparatus.
- 20 5. The apparatus of claim 1, and further comprising:
a photo diode operatively connected to activate the apparatus when exposed
to sufficient light.
- 25 6. The apparatus of claim 1, wherein the apparatus is affixed to a computer
component.
7. The apparatus of claim 1, wherein the apparatus is affixed to a packing
container of a computer system.

30

8. The apparatus of claim 1, and further comprising:
a mailing flap which folds over the apparatus to allow the apparatus to be
mailed.

5 9. A packing container for a computer system, comprising:
a container capable of holding computer system components; and
an audio assisted setup apparatus affixed to the container, the apparatus
activated to provide audio startup instructions to assist a user in
setting up a computer system.

10

10. A computer system, comprising:
a computer; and
an audio assisted setup apparatus affixed to a component of the computer, the
apparatus activated to provide audio setup instructions to assist a user
in setting the system up.

15

11. The computer system of claim 10, wherein the audio assisted setup apparatus
comprises:

20 a processor;
a memory operatively connected to the processor, the memory containing
audio file instructions for setting up a computer system;
a speaker connected to the processor; and
a set of controls for controlling the operation of the audio file instructions.

25 12. The apparatus of claim 11, wherein the speaker is a piezoelectric speaker.

13. The apparatus of claim 11, wherein the controls comprise a selection
consisting essentially of back, next, repeat, restart, more, language select and speed
select options.

30

14. The apparatus of claim 11, wherein the set of controls further comprises a display which displays an instruction number and instruction label for the audio instruction being presented by the audio assisted setup apparatus.

5 15. The apparatus of claim 11, and further comprising:
a photo diode operatively connected to activate the apparatus when exposed
to sufficient light.

16. A method of assisting a user in set up of a computer system, comprising:
10 providing a self-contained apparatus containing a set of audio instructions
presentable to the user upon actuation of the apparatus;
activating the apparatus upon the occurrence of a triggering event; and
allowing the user to control the presentation of audio instructions.

15 17. The method of claim 16, wherein the triggering event is impingement of a
predetermined amount of light on the apparatus.

18. The method of claim 16, and further comprising:
providing additional instructions if the user desires additional instructions.

20 19. The method of claim 16, and further comprising:
allowing the user to repeat an instruction.

20. The method of claim 16, and further comprising:
25 allowing the user to adjust the speed of presentation of the audio instructions.

21. The method of claim 16, allowing the user to restart the audio instructions
from the beginning.

30 22. The method of claim 16, and further comprising:

displaying a legend indicating the instruction number and label corresponding to printed instructions.

23. A machine readable medium comprising machine executable instructions for
5 causing a processor to perform a method comprising:
providing a user a set of audio instructions for setting up a computer system.

24. The machine readable medium of claim 23, wherein the method further
comprises:
10 providing additional instructions if the user desires additional instructions.

25. The method of claim 23, and further comprising:
allowing the user to repeat an instruction.

15 26. The method of claim 23, and further comprising:
allowing the user to adjust the speed of presentation of the audio instructions.

27. The method of claim 23, allowing the user to restart the audio instructions
from the beginning.

20 28. The method of claim 23, and further comprising:
displaying a legend indicating the instruction number and label corresponding
to printed instructions.

25

Abstract of the Disclosure

An audio assisted setup apparatus and method include providing a set of audio instructions stored in a memory, and presented to a computer purchaser to
5 assist in setup of a computer system. The apparatus is activated automatically upon a triggering event, and runs before the computer is set up.

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10 Patents, Attn: Box Patent Application, Washington, D. C. 20231.

"Express Mail" mailing label number *EL530191130US*

Date of Deposit *SEPTEMBER 30, 1999*

Printed name *CHRIS HAMMOND*

Signature *Chris Hammond*

15

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FIG. 1

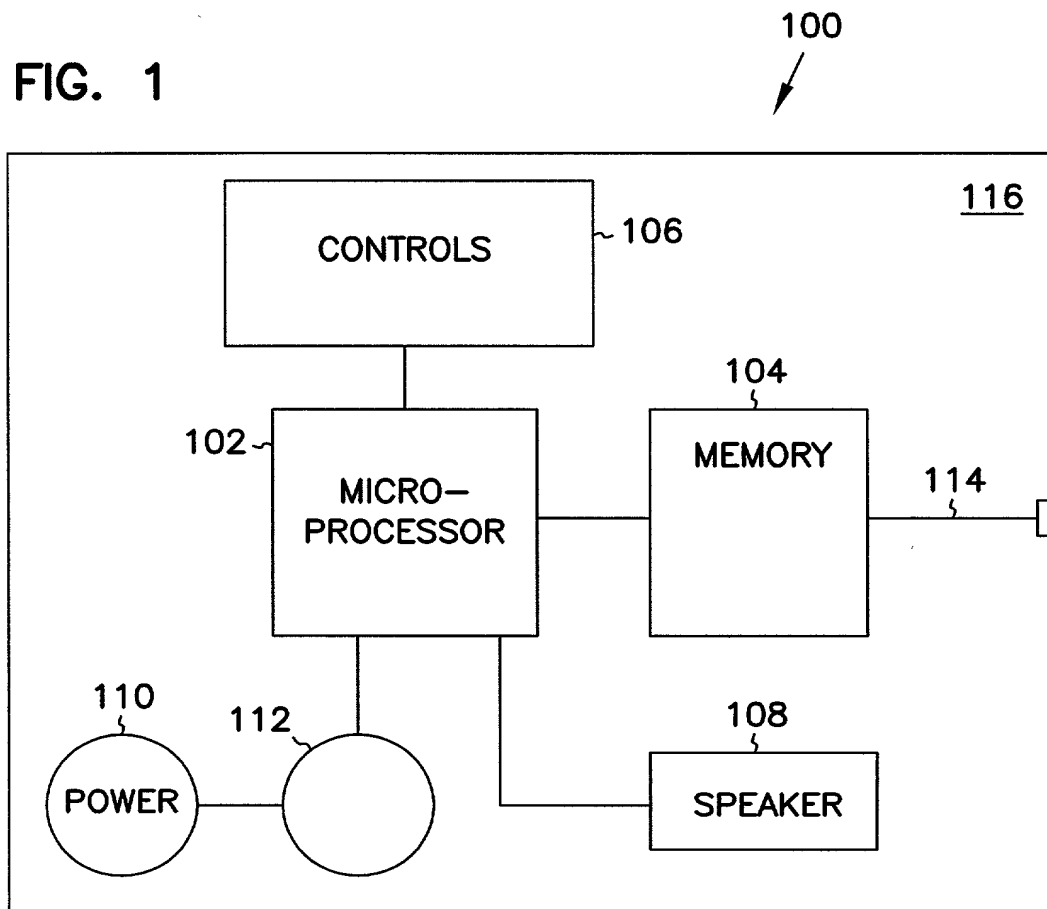
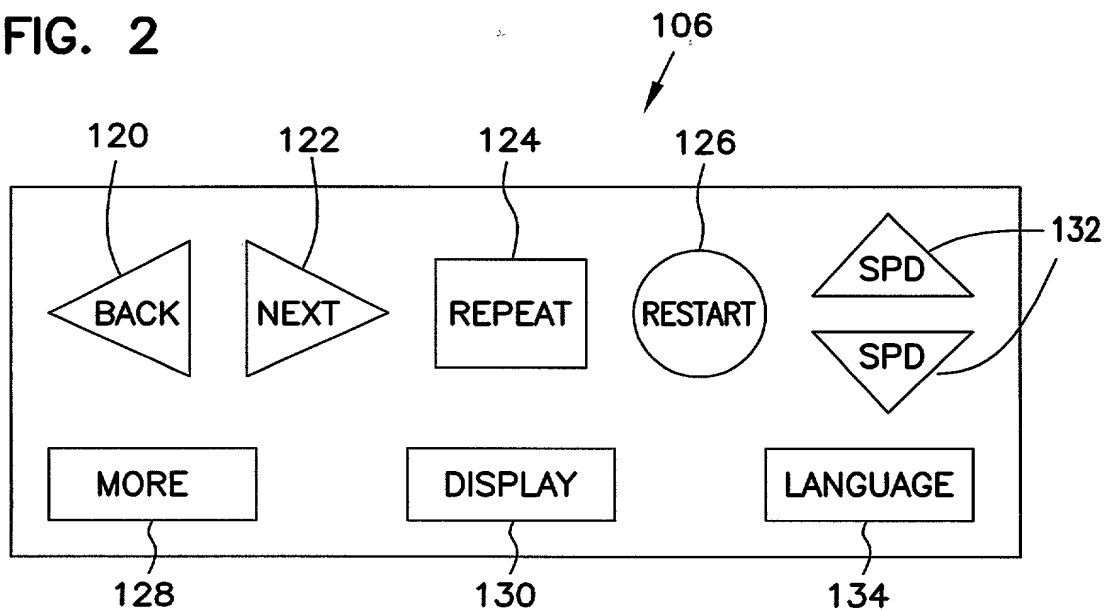


FIG. 2



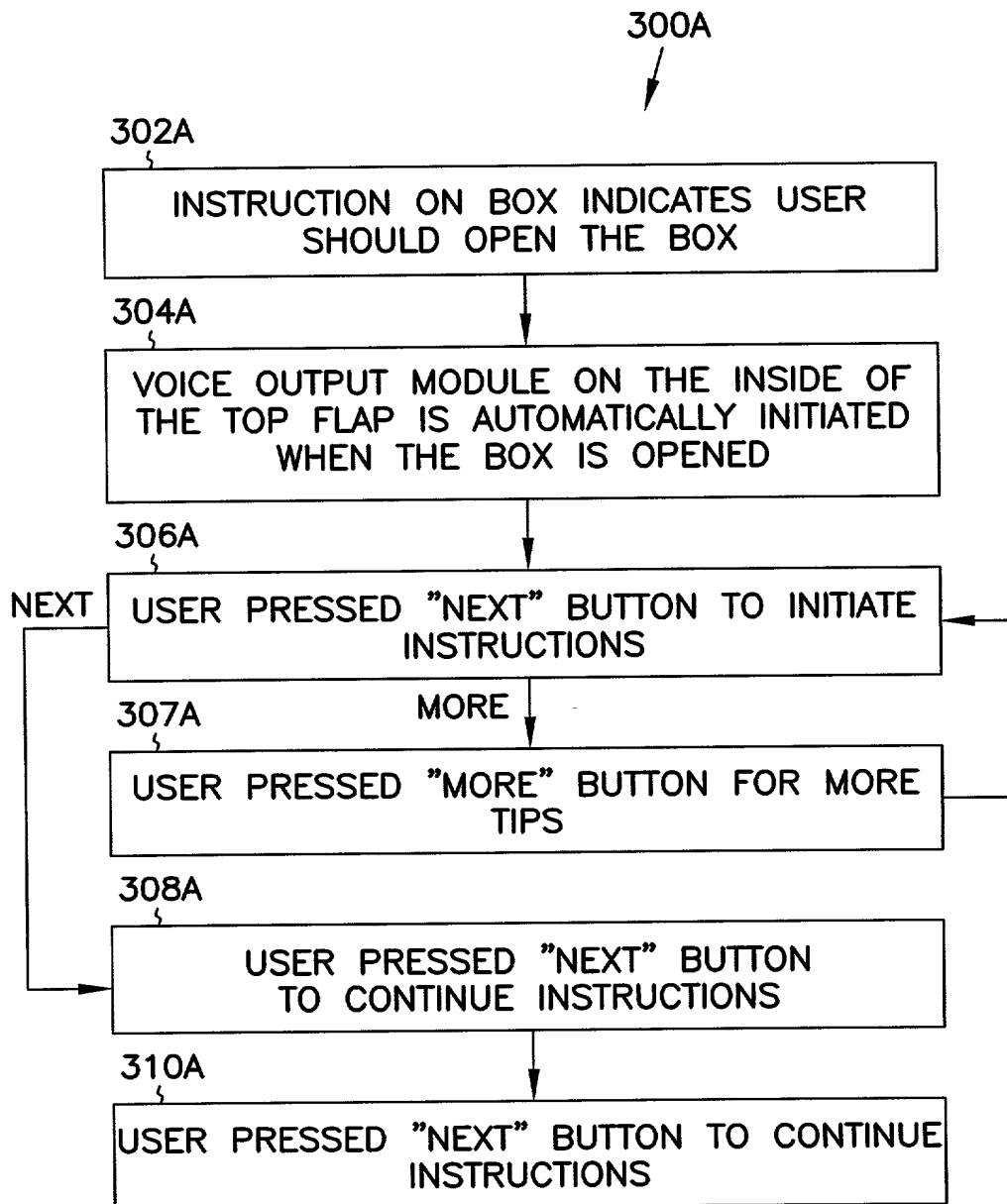


FIG. 3A

5

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□

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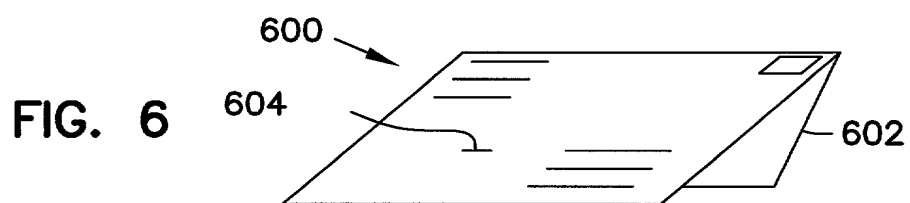
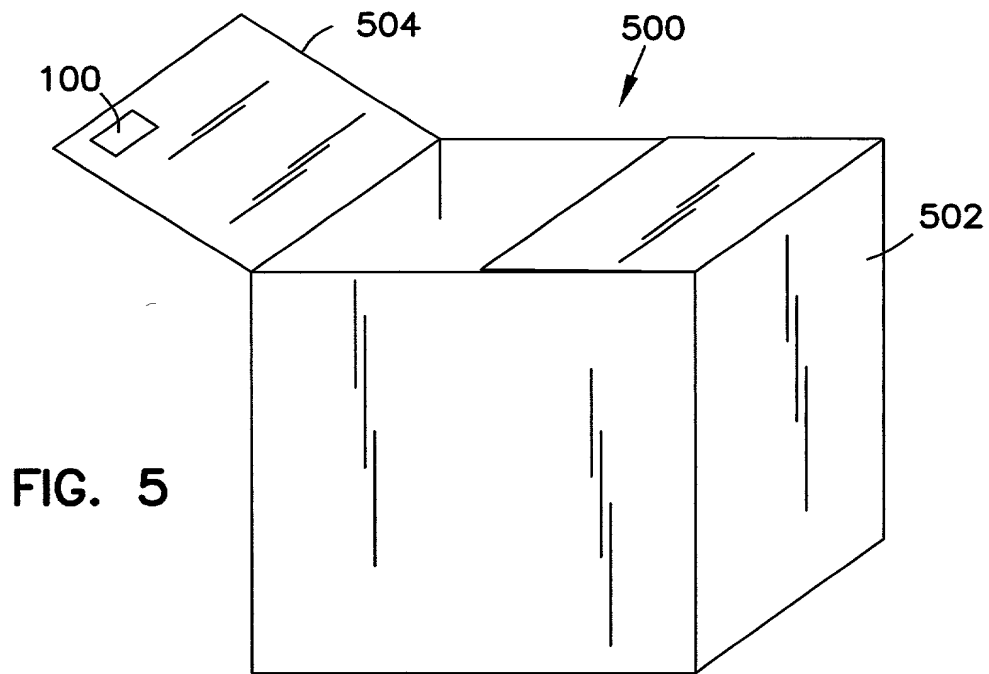
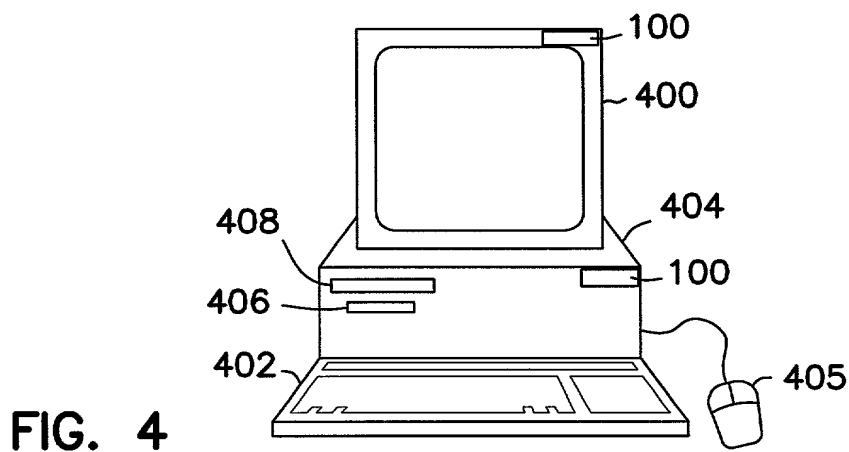
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Glen J. Anderson

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Serial No.: Unknown

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Title: AUDIO ASSISTED SETUP APPARATUS AND METHOD

POWER OF ATTORNEY BY ASSIGNEE AND
CERTIFICATE BY ASSIGNEE UNDER 37 CFR § 3.73(b)

Assistant Commissioner for Patents
Washington, D.C. 20231

Gateway, Inc., assignee of the entire right, title and interest in the above-identified application by assignment attached hereto, hereby appoints the attorneys and agents of the firm of SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A., listed as follows:

Adams, Gregory J.	Reg. No. F-44,494	Forrest, Bradley A.	Reg. No. 30,837	Nama, Kashi	Reg. No. 44,255
Adams, Matthew W.	Reg. No. 43,459	Harris, Robert J.	Reg. No. 37,346	Nelson, Albin J.	Reg. No. 28,650
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Arora, Suncel	Reg. No. 42,267	Jurkovich, Pam I.	Reg. No. F-44,813	Oh, Allen J.	Reg. No. 42,047
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Brennan, Leonide M.	Reg. No. 35,832	Kluth, Daniel J.	Reg. No. 32,146	Perdik, Monique M.	Reg. No. 42,989
Brennan, Thomas F.	Reg. No. 35,075	Lacy, Rodney L.	Reg. No. 41,136	Polglaze, Daniel J.	Reg. No. 39,801
Brooks, Edward J., III	Reg. No. 40,925	Leffert, Thomas W.	Reg. No. 40,697	Prout, William F.	Reg. No. 33,995
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Clark, Barbara J.	Reg. No. 38,107	Litman, Mark A.	Reg. No. 26,390	Slaffert, Kent J.	Reg. No. 41,312
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Embrussen, Janet E.	Reg. No. 39,665	Malen, Peter L.	Reg. No. F-44,894	Vikmans, Ann S.	Reg. No. 37,748
Fogg, David N.	Reg. No. 35,138	Mazza, Robert E.	Reg. No. 35,271	Woessner, Warren D.	Reg. No. 30,440
Fordenbacher, Paul J.	Reg. No. 42,546	McCrackin, Ann M.	Reg. No. 42,858		

and also attorneys Mark S. Walker (Reg. No. 30,669) and Anthony Claiborne (Reg. No. 39,636) Joseph H. Lee (Reg. No. 37,664) of Gateway, Inc., as its attorneys with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office in connection therewith.

The assignee certifies that the above identified assignment has been reviewed and to the best of the assignee's knowledge and belief, title is in the assignee.

Please direct all correspondence regarding this application to the following:

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GATEWAY, INC.

By: Mark S. Walker

Name: Mark S. Walker

Title: Group Chief Patent Counsel

Dated: 9-30-1994

DECLARATION FOR PATENT APPLICATION

As a below named inventor I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

AUDIO ASSISTED SETUP APPARATUS AND METHOD .

The specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (see page 3 attached hereto).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

No such claim for priority is being made at this time.

I hereby claim the benefit under Title 35, United States Code, § 120/365 of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application.

No such claim for priority is being made at this time.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Date: 9/28/99

Full Name of inventor:
Citizenship: Residence:
Post Office Address:

Signature: _____

Date: _____

Full Name of inventor:
Citizenship: Residence:
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Signature: _____

Date: _____

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Signature: _____

Date: _____

§ 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) it refutes, or is inconsistent with, a position the applicant takes in:
 - (i) opposing an argument of unpatentability relied on by the Office, or
 - (ii) asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.